



To: "Puckett, John" <John.Puckett@stantec.com>
"Gorski, Alan" <Alan.Gorski@stantec.com>, Bob Kay/R5/USEPA/US@EPA,
"Doyle.Wilson@illinois.gov" <Doyle.Wilson@illinois.gov>, "Kerr, James"
Cc: <James.Kerr@stantec.com>, "Alberg, Jon" <Jon.Alberg@stantec.com>,
"Paul.Rohde@CH2M.com" <Paul.Rohde@CH2M.com>, "Moyer, Scott R UTCHQ"
<Scott.Moyer@UTC.COM>
Bcc:
Subject: Re: UTC/HSC Phase 2 ASW/SVE System Final Design Response to Comments
From: Timothy Drexler/R5/USEPA/US - Thursday 08/26/2010 03:44 PM

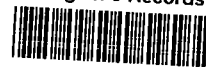
Hi John:

Your response covers our concern. EPA approves of your proposal for Phase 2 of the SE Rockford Area 9/10 AS/SVE system.

Tim Drexler
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"Puckett, John"

Hi Tim, The following is the response to the addi...

08/26/2010 03:28:57 PM

From: "Puckett, John" <John.Puckett@stantec.com>
To: Timothy Drexler/R5/USEPA/US@EPA
Cc: "Moyer, Scott R UTCHQ" <Scott.Moyer@UTC.COM>, Bob Kay/R5/USEPA/US@EPA,
"Doyle.Wilson@illinois.gov" <Doyle.Wilson@illinois.gov>, "Paul.Rohde@CH2M.com"
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<James.Kerr@stantec.com>, "Gorski, Alan" <Alan.Gorski@stantec.com>
Date: 08/26/2010 03:28 PM
Subject: UTC/HSC Phase 2 ASW/SVE System Final Design Response to Comments

Hi Tim,

The following is the response to the additional information you requested in your email of August 25, 2010 regarding the granular activated carbon (GAC) unit specified for the Phase 2 air sparge/soil vapor extraction system (AS/SVE) Southeast Rockford Area 9/10.

Comment Page 12, Section 4.3.4 of USEPA Comments to the Phase 2 AS/SVE System Design:

Planning to condition the vapor prior to the GAC treatment units is a best engineering practice. It is recommended that the GAC manufacturer's specification for temperature and relative humidity be adhered to, and that sample ports be provided. In addition, measurements should be collected to document the system is operating in conformance with the manufacturer's specifications.

Stantec Response:

The following are the manufactures specifications for the carbon units and the activated carbon. The maximum influent temperature for the GAC unit specified by the manufacturer is 130° F. The heat exchanger is designed to reduce the effluent temperature of the process air to 120° F. A high temperature shut off switch will be installed at the effluent of the heat exchanger. The set point of the high temperature shut off switch will be 130° F. In the event that the effluent from the heat exchanger reaches 130° F, the temperature switch will shut down the AS/SVE system.

The humidity of the process air will be reduced by the air/water separator located in line prior to the SVE positive displacement blower. The air/water separator uses cyclonic flow to reduce the water content of the process air. In addition, a de-mister element is installed just prior to discharge from the air/water separator to trap any remaining water vapor. If any moisture remains in the process air after the air/water separator, it will appear as condensate due to the temperature drop across the heat exchanger. A second de-mister will be installed at the discharge of the heat exchanger (this is a condensate tee that discharges the collected water back to the inlet of the air/water separator) to remove the remaining moisture. Please note, each carbon unit has a 1" drain installed at the bottom of the unit. A ball valve will be installed at each drain allowing the removal of any accumulation of condensate. These drains will be checked according to the frequency specified in the O&M plan.

We believe this satisfies all of your comments to the Phase 2 AS/SVE System Final Design. Please confirm that the Phase 2 AS/SVE System Final Design is unconditionally approved.

Thank you

John Puckett PE
Senior Engineer

Stantec

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